

DIGITAL LITERACY FOR ALL:

A COMPARATIVE CASE STUDY OF THE
IMPLEMENTATION OF DIGITAL
LITERACY FRAMEWORK IN AUSTRALIA,
CANADA, ITALY, JAPAN, AND MEXICO



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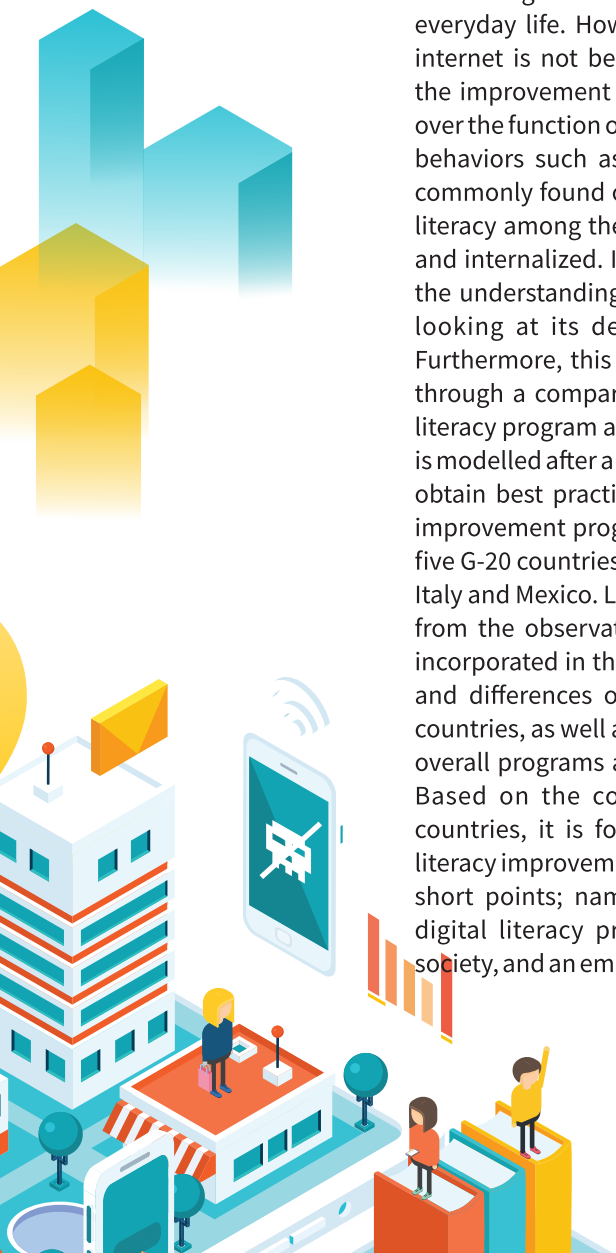
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SUMMARY

Since its introduction in late 19th century, the internet has emerged as a vital component in the practice of everyday life. However, the rapid development of the internet is not being accompanied simultaneously by the improvement of user behavior and understanding over the function of the internet. In some cases, negative behaviors such as cyber bullying or hate speech are commonly found on the internet. Therefore, the digital literacy among the internet user needs to be improved and internalized. In this case study, we aim to improve the understanding of the concept of digital literacy by looking at its development in the recent decade. Furthermore, this case study will be illustrated further through a comparative study of the practice of digital literacy program among G-20 countries. This case study is modelled after a desk research method. Here, we try to obtain best practice and experience of digital literacy improvement program through a comparative study of five G-20 countries, which are Australia, Canada, Japan, Italy and Mexico. Later, the data and information gained from the observation on five countries above will be incorporated in the next part to analyze the similarities and differences of digital literacy programs in these countries, as well as to take a critical reflection from the overall programs and understanding of digital literacy. Based on the comparative study of the five G-20 countries, it is found out that the pattern of digital literacy improvement program can be identified in three short points; namely the existence of national-scale digital literacy program, an initiative from the civil society, and an emphasis on education.





Introducing Digital Literacy

The growth of users and the number of engagements occurring online are increasing steadily throughout the year. More users and more exchange of information ensue in the digital world. According to the figure 1 below, the global internet traffic will almost reach 200 Exabyte/month in 2020, showing the growing dependency on communications and highlighting the critical advancement of high-quality connectivity.ⁱ

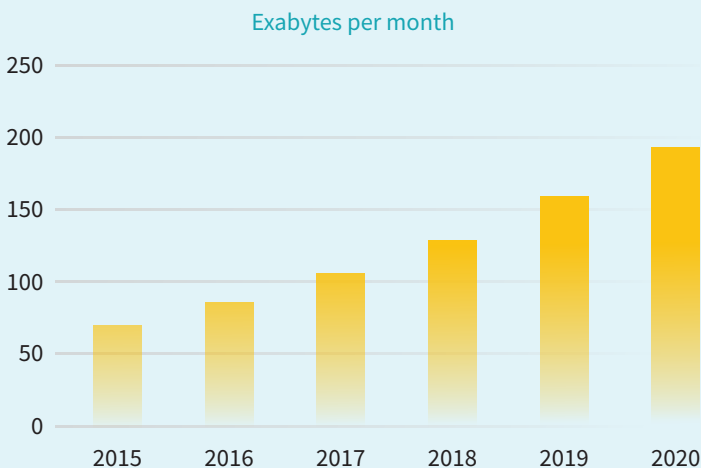


Figure 1. Global Internet Traffic Forecast

Through this increased connectivity, there are also potential issues or threats attached to the situation. Some of it includes the widely-spreading hoax posts, a growing anti-intelligence movement, online radicalization, terrorist networks, harmful contents, online bullying, and more. These issues appear due to the condition where this growth is not paired with a framework that helps digital users to navigate.ⁱⁱ



Digital literacy has been around since the 1990s, yet only now the world put a great emphasis on implementing it on a nation-state level. For a while, the transformation of digital skills could be observed from general requirements for employees as simple as the ability to operate office software. As time passes, digital literacy becomes a concept that encompasses more than just the functional aspects of the use of technology. According to Selfe, digital literacy refers to a complex collection of social and cultural values tied to existing ethics, practices and skills and engages in the operation of language in linguistics within the context of the electronic environment, including the ability to read and communicate in the digital world. Beyond the context of digital literacy practice, United Nations Educational, Scientific and Cultural Organization prioritizes digital literacy as an effort to empower communities. Therefore, digital literacy must be able to cover the ability to recognize the information needed, locate and evaluate qualified information, store and retrieve information, use information ethically and efficiently, and apply information to create and communicate knowledge.^{iv}

In short, digital literacy provides a framework for users to navigate themselves in the ever-growing digital world. It becomes pertinent due to the incoming challenges brought by technological advancements. Challenges such as the digital divide, online radicalization, hate speech, cyber bullying, and many to name. These issues are detrimental to society, and it had been categorized as digital age security threats by scholars. Many states have implemented various measures to counter these challenges, and in this case study, there are five countries with digital literacy programs which have been implemented for a while; they are Japan, Australia, Canada, Italy, and Mexico.

Global Commitment in Pursuing a Digitally Literate Society

In the introduction, we can see how UNESCO has pointed out the importance of digital literacy as essential life skills for not only employment purposes. Irina Bokova, the current Secretary General of UNESCO, sees how paramount digital literacy is for the younger generation especially in combating harmful contents and radicalization that roam on the internet. As such, digital literacy will provide direction and survival skills needed to avoid danger, as well as the ability to digest information critically, distinguish lies, and uphold humanity and respect among fellow human beings.^v

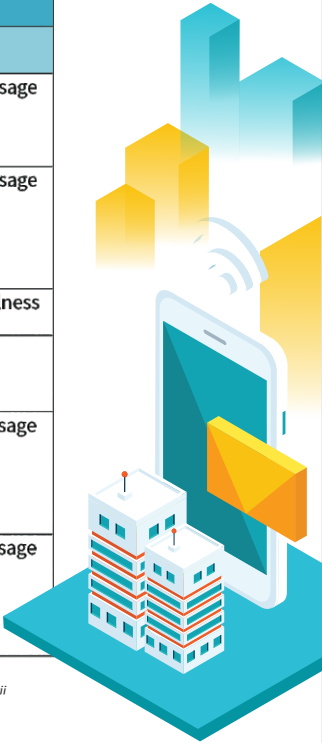


G20 Insight, a G20-based institution supported by various G20 think tanks, proposed the agenda of digital literacy to be brought to the 2017 summit in Germany. While the G20 Summits in 2015 and 2016 understood the concept of digital divide and ways to counter it in development, financial inclusion, and digital trade, the group emphasized the need for a consistent, standardized definition of Digital Literacy across G20 countries for data collection, analyses, and measurement. The mutual understanding of digital literacy will be able to leverage the full potential of investments as mentioned above. In fact, the existence of a comprehensive skilling program which educates the currently disadvantaged and disconnected population about the benefits of digital tools will support policy makers on digital transformation objectives.^{vi}

To summarize, in 2017, G20 should be able to adopt a standardized, multi dimensional definition of digital literacy, produce a standardized multi-dimensional Digital Literacy Index, and align with the demand and supply of digital skills required by all role players. G20 Insight simplifies it in table 1 below.

Dimension	Perspective		
	Cognitive	Technical	Ethical
Information (Digital Content)	Synthesis	Access, Usage	Appropriate Usage
Computer (Hardware and software)	Evaluate	Usage	Appropriate Usage
Media (Text, sound, image, video, and social)	Critique, Create	Navigation	Assess truthfulness
Communication (non-linear interaction)	Critique, Create	Develop and use content	Appropriate usage
Technology (Tools for life situation)	Invent, evaluate tools	Usage	Appropriate usage

Table 1: Simplified representation of the Digital Literacy dimensions and perspectives^{vii}



Therefore, the case study considerably assesses Australia, Canada, Japan, Italy, and Mexico, as they represent some of the G20 countries which had implemented digital literacy frameworks through formal (government) and informal (people) sectors. These five countries are also chosen because they represent each continent, possess a varying degree of economic prowess, enact a variety of policies, and showcase early initiatives in implementing digital literacy framework. Geographical and economic representations are necessary to make sure that the case presented in this writing cover wide range of spectrums so that more stories, lessons, and experiences can be portrayed. Beyond that, G20 in itself can also be seen as a pool of digitally aware countries, – as seen on their communiqué – as the leaders see the need of digital harness to end the digital divide. They also recognize that information and communication technology (ICT) plays a crucial role in modernizing and increasing efficiency in public administration.^{viii} In their earlier meeting in 2016, the notion of digital inclusion had also been agreed.^{ix}

Countries	Formal Sector	Informal Sector
Argentina	4	0
Australia	6	1
Brazil	1	1
Canada	5	5
People's Republic of China	0	1
France	3	2
Germany	3	4
India	2	4
Indonesia	1	2
Italy	4	4
Japan	6	2
Mexico	5	2
Russia	3	2
Saudi Arabia	5	2
South Africa	4	2
The Republic of Korea	3	1
United Kingdom	3	2
United States	4	2
European Union	3	1
Turkey	3	1

Table 2. G20 Members' Digital Literacy Initiatives

In a prior research conducted by Center for Digital Society in mapping the Digital Literacy efforts among the members of G20, it is visible that only some countries had more initiatives regarding Digital Literacy in both formal and informal sectors in comparison to the others. This becomes necessary in choosing the countries to be examined in this case study, along with their economic presence as seen in the figure below.

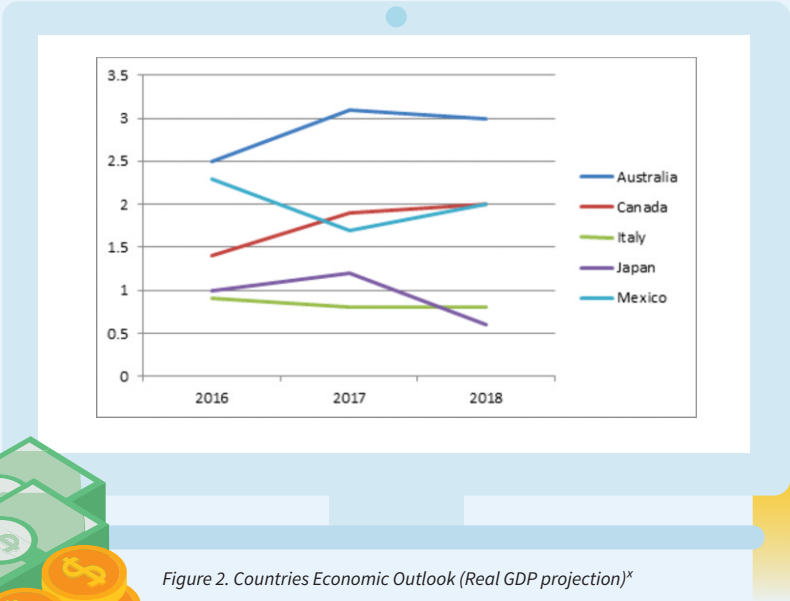


Figure 2. Countries Economic Outlook (Real GDP projection)^x

As we can see, these countries show economic contrast among each other. According to the category provided by IMF, Japan, Canada, and Australia are categorized as advanced economies, while both Mexico and Italy fall into the emerging market and developing economies categories. These differences would give us clarity in seeing the degree of digital literacy implementations and efforts objectively, by the needs of these countries paired with their capabilities.



Case Study: Australia



Australia is one of the leading countries in implementing digital literacy framework in multiple aspects namely education, business, and development. By creating The Australian Curriculum on Digital Technologies, Australia has seen the need for assisting and facilitating the younger generation in the kind of tools that would help them to navigate better in a more digitalized society.^{xi} Aside from that, this program is being supervised by the Department of Education and Training under their National Innovation and Science agenda. Moreover, the program also targets educators and teachers in re-learning the basics of digital literacy. The government provides free training and online courses which are accessible by educators especially those who teach at the elementary level to take part in these digital initiatives. Students must also take part in developing their essential life-skills which include digital literacy and knowledge in sustainable technology. In addition to that, the government also provides incentives and rewards in the forms of national competitions and Summer Schools which focus on computer science.^{xii}

Australian government believes in seeing the digital transition as a part of the progressing world and the merits of technological advancement. Nonetheless, most of their programs aim to empower and enrich its people. Thus, there are no programs created to limit citizens' information access, especially from the Internet. Freedom of the users remains paramount for the government, and it became their objectives to prepare the users and future users with the skills needed to become better users with comprehensive understandings of the fast information exchange without denouncing the humanity aspects. Australia interprets the importance of closing the gap gradually by using digital tools as the enabler. Moreover, the digital inclusion project nationally improved the number of access steadily over the past four years, from 62.2 in 2014 to 69.6 in 2017. Australians are accessing the internet more often, using an increasingly diverse range of technologies, and with larger data plans than ever before.^{xiii}

Another digital-literacy-based program in Australia is developed by the people, and Go Digi is one of the good examples of how society has understood the inevitable role of



technology and wants to assist those who are unfamiliar with how the digitalized system works. The engagement provided by the organization is separated into three; learners, mentor, and partner. Learners are free to take part in understanding how to do things online, starting from the e-commerce, to how to gain the right access for the right kind of information. Mentors are those who already have the digital literacy skills and willing to teach their abilities to the learners. Lastly, partners are the organizations/institutions who are willing to collaborate with Go Digi in conducting training/events related to digital literacy.^{xiv}

Case Study: Canada



In Canada, the internet is reliable and affordable enough for every citizen. With sufficient human capital, Canada is looking forward to gradually transforming themselves into a digital economy. However, a critic by Tea Hadziristic suggests that Canada lacks behind in the state of digital literacy due to the absence of a definition of digital literacy and its measurement mechanism.^{xv} The absence of comprehensive national strategy has made the digital literacy development in Canada becomes limited and immeasurable. Despite the limitation above, it does not mean that the government and the civil society remain silent on this topic. There are several initiatives, policies, and campaigns being developed to promote digital literacy in every aspect, ranging from education, business and also the society itself.

The initial project of introducing the internet to the community had been fostered by the introduction of “Community Access Program” by the government in the late 1990s. As a result of this initiation, 84% of the populations in Canada today are regular internet users. Then, the effort to improve digital literacy in Canada continued in 2001 through the implementation of “Canadian Strategy to Promote Safe, Wise and Responsible Internet Use.” The main aim of this instrument is to educate and empower the internet users and enhance authorized legitimacy in cyberspace. Next, Canada is planning to commemorate its 150th year of independence in 2017 with the introduction of “Digital Canada 150.” It comprises of five pillars, including protection for Canadian internet



users and also promoting Canadian contents.^{xviii} Currently, a new model of an anti-cyberbullying act is under its way after the same law was turned down by the Canadian Supreme Court in 2015.^{xix}

Due to Canada's huge territorial size and relatively-small population, distant education is quite popular throughout the country. The K-12 online learning in Canada is a program that utilizes ICT as a medium of education where it attracts more than 245,000 students in 2011 alone.^{xx} Looking at this trend, it can be analyzed that the usage of ICT as a primary medium of education also can contribute positively toward digital literacy among Canadian youths. However, as mentioned by Hadziristic, the government needs extra work to establish integrated, nationwide digital literacy curricula into the Canadian offline and online education system.^{xxi}

As mentioned before, the absence of national benchmark on digital literacy makes the civil society's role in this topic becomes even more crucial. Fortunately, several civil organizations are leading the way by developing digital literacy program. For instance, the “ABC Internet Matters”, a program developed by ABC Life Literacy, aims to enhance digital literacy among the society by conducting workshops in several cities as well as producing literature pieces.^{xxii} Meanwhile, the Neil Squire Society is working to improve digital literacy among seniors in Canada through the “Seniors-on-Seniors Technology” program.^{xxiii} These examples above suggest that the activeness of the civil organization has provided a substantial contribution to the community in Canada. Furthermore, when the government is eager to support the civil organization consistently, perhaps they can take even more leadership role in building digital literacy in Canada.

Case Study: Italy



As one of the most recognized countries in the European region, Italy holds an average level of internet and digital literacy development compared with the other four countries in this case study. Research by Davide Gualerzi discovers that the Italy still suffers from digital divide that is caused by the socioeconomic factor in each region.^{xxiv} Nonetheless, the government is now making a serious commitment to integrate IT into their national development program.



An effort to build a digital literacy must be accompanied with sufficient internet infrastructure as well. Italy suffers at this point after the approval of Law no. 155/2005 or known as Pisanu's Law. Article 7 of this law stated that those who want to establish a public Wi-Fi connection needs to inform their intention to the police in the first place.^{xxv} This article was made due to concern toward public Wi-Fi utilization by terrorist to coordinate their action. Eventually, this specific article was removed in 2011.

Then in 2012, the Minister of Economic Development, and several other ministers issued a decree which resulted in the formation of “Italian Digital Agenda.” The policy above aims to adopt the strategy and the principle of digital agenda as established by the European Union into the Italian context.^{xxvi} Since then, the government also established the Agency for Digital Italy, as the governmental body that is responsible for maintaining ICT development and innovation in every sector, including education, digital administration, and also data openness to the public.^{xxvii}

The government of Italy introduces the “*Nati per Leggere*” (family literacy program) as their effort to empower the family, as the smallest social institution, to be an active actor to create a literate environment.^{xxviii} It is hoped that the empowerment at the family level will be able to nurture the digital literacy awareness at the earliest stage as possible. Then, to complement the policy at the family level, Italy puts a progressive effort at integrating their education with the advance in information and technology.

The government has considered the idea of IT implementation in education since 1985, and in 2007, Italy introduced “*Piano Nazionale Scuola Digitale*” (Digital school) as the new national plan which aims to make the internet as a standardized component in every school classroom.^{xxix} This policy has two main objectives; which are to enhance the ICT skills of the society and also to reform the learning method in school.^{xxx} In local level, there are also programs like “*Laboratori*”, “*Lesamol*”, and also “Using Web Comic in Education”. Those programs offer agendas such as learning process, reading and workshop, which utilize the internet as the primary platform for the entire activities.^{xxxi} Hence, it can be inferred here that the government of Italy is putting an extra effort to teach digital literacy from the smallest environment with a hope that this series of programs will be able to give a comprehensive outcome for the future generation of Italy.



Case Study: Japan

Nowadays, Japan is still recognized as one of the global economic powerhouses. According to research done by Akami Technologies, Japan has the seventh (7th) fastest internet connection in the world.^{xxxii} Other than that, Japan has the sixth most active internet users as of March 2017 with almost 93% of its population are capable of accessing internet.^{xxxiii} Then, with an enormous amount of population and sophisticated internet connection, the government of Japan and the civil society lays out several campaigns to ensure that the availability of internet connection is being utilized for positive purposes.

First of all, the plan to develop ICT – includes the internet – in Japan has been introduced since 2001 with the implementation of e-Japan. Then, in 2004, the e-Japan was reformed and renamed as u-Japan with four principles; Ubiquitous, Universal, User-Oriented, and Unique. Through U-Japan, the government was hoping to "realize a vigorous, safe, and convenient society through the use of IT."^{xxxiv} Besides, U-Japan is also targeted to improve Japan's economic development by 2010.

Fumie Kumagai, in his journal, concludes that the internet development plan should be aimed to surround the youth in a 'technology-based media environment' with a hope that the next generation in Japan can use it for learning purpose in many aspects.^{xxxv} There is not yet any national regulation that addresses content censorship in Japan due to Constitution's high respect for freedom of speech. Nonetheless, the civil society and the industry are both active in internet content restriction agenda. In 2008, a civil organization called as Content Evaluation and Monitoring Association was formed. Its main task is to advocate the healthy mobile phone usage among the society.^{xxxvi} Then in 2011, The Internet Content Safety Association – an organization with the similar aim as the former – was established and attracted 21 members of internet providers.

Naturally, from the high enthusiasm from the society and the comprehensive national strategy, the effort to improve digital literacy in Japan is also conducted through several non-formal campaigns. For instance, the government of Japan encouraged the use of social media in the 2013 upper-house election despite being prohibited in the past due to the rigid election law. Professor Takeshi Natsuno blamed



the prohibition of social media as the reason behind Japan's political backwardness. Thus, it can be seen that the allowance of social media usage is a big step for Japan to modernize its election ecosystem and also enhance political participation from the society.

Furthermore, the government and the private sector in Japan are currently working on proposing the idea of “Japanese Internet Fasting Camp”. This program is intended for students who are kind-of-addicted of the internet. Though the internet is a beneficial technology, it is also blamed as the source of obesity and eating disorder among children in Japan^{xxxix} This program will teach the student how to use the internet most effectively and reduce their addiction to the internet.

Case Study: Mexico



Mexico is one of the leading countries which is currently advocating the Internet as part of citizens' fundamental rights. Legally, Article 6 of the Constitution of Mexico recognizes the duty of the state to guarantee access to information and communications technologies (ICTs), including the internet. An extension of the same article establishes that telecommunications are a public service of general interest, and must be provided under conditions of competition, quality, plurality, universal coverage, interconnection, convergence, continuity, free access and without arbitrary interference.^{xl} In facing issues such as economic inequality, the government of Mexico sees how the Internet serves the purpose of opening opportunities inclusively to all elements of the people. Therefore, aside from their progress in making the Internet as a human right, which can be enjoyed by Mexicans, the country also highly regards their Net-neutrality policy, which supports the principles of non-discrimination and free access.^{xli}

Mexico's path towards a more digitalized government is driven by their National Digital Strategy agenda which was started in 2013; the new “Digital Mexico” comes with various strategies, instruments, and approaches which become the framework for the state's development. The National Digital Strategy, coordinated by the President's Office was seen as democratizing the access to tools such as the Internet and



broadband and making the most of the endless possibilities technology can offer. Moreover, this digital inclusion which consists of government transformation, digital economy, quality education, effective universal health, and public safety used digital literacy, for example, as an enabler to fulfil their five-years plan.^{xlii} In addition to the internal reformation, Mexican government also launched the campaign against cyber bullying, as the severe cases of bullying in Mexico were a national concern; trending the hash tag #ElBullyingNOEsUnJuego or "Bullying is NOT a game." The President, celebrities, and other famous figures took part in this nationwide campaign to make school and the digital platform as safe space for students.^{xliii}

The efforts of fulfilling the agenda do not end at the governmental level; plenty of society-based acts were also conducted by the citizens of Mexico. One that specifically voiced the importance of digital literacy and being secure on the internet is Think Before You Sext: 10 Reasons Not to Perform Sexting.^{xliv} The initiative sees the importance of protecting one's privacy, and the danger of internet leakage; the framework which the organization created helps users to understand the level of privacy on Internet and to be wiser in using social media.

Comparative Outlook

By looking at the cases and implementations, there are several aspects which can be pinpointed both distinctions and similarities in the context of digital literacy framework. Firstly, each country has their interpretation of what digital literacy is and how they see it fits for the issue within the country. However, there is one significant similarity amongst all, and that is the need for the reactive solution to the ever-changing world; in this context, that would be the technological advancement. While countries like Mexico focus on Digital Literacy as the long-term solution to the creation of "Digital Mexico," countries such as Australia see Digital Literacy as a whole package paired with its inclusive development agenda.

However, amongst these countries, there is a similarity where they develop a variety of campaigns as a way to foster digital literacy concerning their own cultures, values and social-political environments. Another similarity is the role of civil society in Japan, Italy, and Canada, who take active initiatives to foster the digital literacy improvement. The community in Canada, for example, is being empowered by the government to



touch the grassroots level. Meanwhile, in Mexico, civil society and notable public figures are involved in a nation-wide campaign to end cyberbullying. Then, another apparent resemblance is apparent on the effort of each country to prepare their youth generation with sufficient digital literacy. For instance, every Italian school is to be equipped with ICT to help student's activity.

On the other hand, the study also suggests that not all countries have a comprehensive national plan. Japan is the only country which proposes an original national plan while Italy is only adopting the EU's bigger framework. Moreover, Canada still struggles with their national-level regulation, and as a result, they do not yet have any national plan on ICT development and currently still relies on the role of civil society or small-scale government initiatives.

From the cases above, it can be learned that the digital literacy is improved not through prohibition over contents, but through empowerment and education. Countries like Canada, Mexico and Japan, who pay great respect to human rights in their constitution, are trying to educate their population on how to use the internet efficiently and positively rather than limiting their right and freedom of speech. Next, the program to improve digital literacy should also be started as early as possible to prepare a human resource that is competitive and eminent in the digital era. Australia, Canada and Italy are putting great effort to equip the school-age population with sufficient digital knowledge in their national curriculum, while Japan and Mexico are developing several programs for the youth in their respective area.





Conclusion

Digital literacy, as unfamiliar it might be, is an essential skill which is needed by the society. The framework that it delivers is much more complicated than guidance in the Internet and operational rules that could help people to navigate themselves in a digitalized world. In the contemporary highly connected world it becomes a set of skills that would empower society as better humans and employees. With digital literacy, people would be able to choose amongst all of the free information the kind of real contents instead of misleading information that might harm the people be it individually or structurally. The digital world, especially the Internet, is merely a room that exists as part of years of technological advancement.

For a while, the internet is free from rules and regulations, but this said freedom transformed this space into the land of misinformation, violence indoctrination, hate-speech, and other negative contents. Instead of fulfilling its roles as the socio-economic enabler, without proper skills and attention from the government, society would not be able to reach their full potentials through digital mediums. Through these case studies, we can see how each country and its citizens allocate a certain amount of attention to the idea of digital literacy, it may vary differently, and in some countries, the framework offered were more involved.

What we can learn here—especially for Indonesia – is that some countries had attempted to make the Internet a better space for people and how government's involvement to an extent is needed by creating a mutual framework and creating awareness. Indonesia has not familiarized itself with the term of digital literacy. While most of the Internet-related policies in Indonesia are more surveillance related, through these examples of road maps and national plans from other countries, Indonesia must be able to implement a long-term solution which gradually adheres to the needs of Indonesians. Eventually, more Indonesians will become Internet users and Indonesia must see the potentials of the Internet in providing information and enabling people to learn. By capitalizing the internet transition, the efforts that Indonesia must impose later on must be able to bind both the government and the people together nationally; unified by one goal, making the Internet an inclusive space for all and using it to empower the people.

- ⁱ Cisco (2016). *Cisco Visual Networking Index Complete Traffic Forecast (2016–2021)*. [online] Cisco. Available at: https://www.cisco.com/c/en/us/solutions/collateral/service-provider/visual-networking-index-vni/qa_c67-482177.html [Accessed 18 Aug. 2017].
- ⁱⁱ Eshet-Alkalai, Y. (2004). Digital Literacy: A Conceptual Framework for Survival Skills in the Digital Era. *Jl. of Educational Multimedia and Hypermedia*, 13(1), pp.93-106.
- ⁱⁱⁱ linuma, M. (2016). *Learning and teaching with technology in the knowledge society: New Literacy, Collaboration, and Digital Content*. 1st ed. Tokyo: Springer, pp.8-10.
- ^{iv} UNESCO (2011). *Policy Brief: Digital Literacy in Education*. Paris: UNESCO Institute for Information Technologies and Education, pp.2-3
- ^v Boskova, I. (2016). *Why We Must Stop Radicalization*. [online] Huffington Post. Tersedia di: http://www.huffingtonpost.com/irina-bokova/stop-radicalization_b_8590060.html [Accessed pada 20 Jul. 2017].
- ^{vi} Chetty, K., Gcora, N., Josie, J., Li, W., Liu, Q. and Zhenglin, B. (2017). *Bridging the Digital Divide: Measuring Digital Literacy - Policy Brief*. 1st ed. Hamburg: G20 Insight.
- ^{vii} Ibid.
- ^{viii} G20 (2017). *G20 Leaders' Declaration Shaping an interconnected world*. Leaders Declaration. Hamburg: G20.
- ^{ix} G20 (2016). *G20 Digital Economy Development and Cooperation Initiative*. Joint Statement. Beijing: G20.
- ^x International Monetary Fund (2017). *World Economic Outlook*. World Economic and Financial Surveys. Washington, DC: International Monetary Fund.
- ^{xi} Australian Government Department of Education and Training (2017). *Digital Technologies*. [online] Australiancurriculum.edu.au. Available at: <https://www.australiancurriculum.edu.au/f-10-curriculum/technologies/digital-technologies/> [Accessed 19 Aug. 2017].
- ^{xii} Australian Government Department of Education and Training (2016). *Inspiring all Australians in digital literacy and STEM | Department of Education and Training*. [online] Education.gov.au. Available at: <https://www.education.gov.au/inspiring-all-australians-digital-literacy-and-stem> [Accessed pada 20 Jul. 2017].
- ^{xiii} Thomas, J., Baracket, J., Wilson, C., Ewing, S., Mackdonald, T., Tucker, J. and Rennie, E. (2017). *Measuring Australia's Digital Divide: The Australian Digital Inclusion Index 2017*. Australian Digital Inclusion. Melbourne: Roy Morgan Research., pp.7-9.
- ^{xiv} Go Digi Australia. (n.d.). *Go Digi Australia*. [online] Available at: <https://www.godigi.org.au/> [Accessed 21 Aug. 2017].
- ^{xv} Hadziristic, T. (2017). *The State of Digital Literacy in Canada*, Brookfield Institute Working Paper April 2017, p. 12
- ^{xvi} Government of Canada. (2009) *Final Evaluation of the Community Access Program*, available from: <https://www.ic.gc.ca/eic/site/ae-ve.nsf/eng/03126.html#p0.4>. [22 August 2017].
- ^{xvii} Media Awareness Network. (2010) *Digital Literacy in Canada: From Inclusion to Transformation*. Available from: <http://mediasmarts.ca/sites/mediasmarts/files/pdfs/publication-report/full/digitalliteracypaper.pdf>. p.21.
- ^{xviii} Government of Canada. (2015) *Digital Canada 150 2.0*. Available from: <http://de-en.gc.ca/eic/site/028.nsf/eng/home#item7>. [22 August 2017]
- ^{xix} Rhodes, B. (2016) *New Nova Scotia Anti Cyber-Bullying Law Won't Come Before Next Spring*, CBNews, 22 September. Available from: <http://www.cbc.ca/news/canada/nova-scotia/diana-whalen-cyber-safety-act-cyberbullying-law-bill-legislation-1.3774281>. [22 August 2017].
- ^{xx} Barbour, MK. (2012) *State of the Nation: K-12 Online Learning in Canada*, Open School BC, Canada.
- ^{xxi} Hadziristic, T (2017), p. 29.
- ^{xxii} ABC Life Literacy (n.d.) *Digital Literacy*. Available from: <http://abclifeliteracy.ca/digital-literacy>. [22 August 2017]
- ^{xxiii} Neil Squire Society (n.d.) *Seniors on Seniors Technology*. Available from: <http://www.neilsquire.ca/research-development/projects-activities/seniors-on-seniors-technology/>. [22 August 2017].
- ^{xxiv} Gualerzi, D. (2016) 'Access to the Internet and Regional Structures: The Case of Italy', *Economia & Region*, vol. 10, no. 1, pp. 61-64.



- xxv About the Law n. 155, 31st July 2005, known as “Pisanu Law” n.d., *Inventati*. Available at: https://www.inventati.org/reati_associativi/traduzioni/eng_02.html. [22 August 2017].
- xxvi Italian Digital Agenda n.d., *Science and Technology Digital Library*. Available at: <http://stdl.cnr.it/en/the-project/the-european-and-national-scenario/italian-digital-agenda>. [22 August 2017].
- xxvii Ibid
- xxviii Ibid, p. 9
- xxix Avvisati, F, Hennessy, S, Kozma RB & Vincent-Lancrin, S. (2013) Review of The Italian Strategy for Digital Schools, OECD Education Working Paper Series. Available from: <https://www.oecd.org/edu/ceri/Innovation%20Strategy%20Working%20Paper%2090.pdf>. [22 August 2017] p. 9.
- xxx Ibid
- xxxi European Literacy Policy Network (ELINET) 2016, Literacy in Italy Country Report Short Version, Lifelong Learning Programme. Available at: http://www.elinet.eu/fileadmin/ELINET/Redaktion/user_upload/Italy_Short_Report1.pdf. [22 August 2017], p. 12.
- xxxii Garfield, L. (2016) *The Top 10 Countries with the Fastest Internet*, Business Insiders, 15 July. Available from: <http://www.businessinsider.com/the-countries-with-the-fastest-internet-speed-2016-7/?IR=T/#10-finland-1>. [22 August 2017].
- xxxiii Statista n.d., *Countries with the Highest Number of Internet Users as of March 2017 (in millions)*. Available from: <https://www.statista.com/statistics/262966/number-of-internet-users-in-selected-countries/>. [22 August 2017].
- xxxiv Turner, J. (2005) The Transition to a Ubiquitous Internet Society, *J@pan Inc Magazine*, Autumn 05, pp. 21-22.
- xxxv Kumagai, F. (2001) ‘Possibilities for Using the Internet in Japanese Education in the Information Age Society’, *International Journal of Japanese Sociology*, vol. 10, p. 41.
- xxxvi Matsuda, M. (2010, ‘Japanese Mobile Youth in the 2000s’, in Donald, SH, Anderson, TD & Spry, D (eds.), *Youth Society and Mobile Media in Asia*, p. 40, Routledge, UK.
- xxxvii Xue, D. (2014), ‘Online Media Use During 2013 Japanese Upper –House Election: A Content Analysis of Comments on Candidates’ Facebook Pages’, *Keio Communication Review*, no. 36, p. 53.
- xxxviii Mie, A. (2013), *Election Campaigning Takes to Net*, The Japan Times, 11 April, Available from: https://www.japantimes.co.jp/news/2013/04/11/national/politics-diplomacy/election-campaigning-takes-to-net/#.WZxZbD6g_6Q. [Accessed 22 August 2017].
- xxxix Ryall, J. (2013), *Japan to Introduce Internet Fasting Camp for Addicted Kids*, The Telegraph, 27 August. Available from: <http://www.telegraph.co.uk/news/worldnews/asia/japan/10267303/Japan-to-introduce-internet-fasting-camps-for-addicted-kids.html>. [Accessed 22 August 2017].
- xl Estados Unidos Mexicanos (n.d.). *Mexico's Constitution of 1917 with Amendments through 2007*. Mexico: Estados Unidos Mexicanos, p.103.
- xli García, L. and Chorny, V. (2016). *Country report: Mexico*. Examining Internet Freedom in Latin America. Open Society Institute, pp.3-4.
- xlii Gobierno de la República (2013). *National Digital Strategy*. Mexico City: Gobierno de la República, pp.11-13.
- xliiii Tuttle, S. (2014). *Child's death sparks nationwide anti-bullying campaign in Mexico*. [online] DigitalJournal.com. Available at: <http://www.digitaljournal.com/news/world/child-s-death-sparks-nationwide-anti-bullying-campaign-in-mexico/article/387412> [Accessed 21 Aug. 2017].
- xliv Fernandez de Castro, R. (2016). *Mexico launches a nationwide campaign against sexting*. [online] Splinternews.com. Available at: <http://splinternews.com/mexico-launches-a-nationwide-campaign-against-sexting-1793861049> [Accessed 21 Aug. 2017].

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